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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/711,034   | 08/18/2004  | Ping Li              | 2055.014            | 5033             |
| 41559  | 7590        | 03/26/2007           | EXAMINER            |                  |
| SAMMY CHAN<br>DEPARTMENT OF ELECTRONIC ENGINEERING<br>CITY UNIVERSITY OF HONG KONG<br>TAT CHEE AVENUE<br>KOWLOON,<br>HONG KONG |             |                      | KIM, WESLEY LEO     |                  |
| ART UNIT   |             | PAPER NUMBER         |                     | 2617             |
| SHORTENED STATUTORY PERIOD OF RESPONSE   | MAIL DATE   | DELIVERY MODE        |                     |                  |
| 3 MONTHS   | 03/26/2007  | PAPER                |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 10/711,034             | LI ET AL.           |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | Wesley L. Kim          | 2617                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 18 August 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-2 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 8/18/04 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

|  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

An examination of this application reveals that applicant is unfamiliar with patent prosecution procedure. While an inventor may prosecute the application, lack of skill in this field usually acts as a liability in affording the maximum protection for the invention disclosed. Applicant is advised to secure the services of a registered patent attorney or agent to prosecute the application, since the value of a patent is largely dependent upon skilled preparation and prosecution. The Office cannot aid in selecting an attorney or agent.

A listing of registered patent attorneys and agents is available on the USPTO Internet web site <http://www.uspto.gov> in the Site Index under "Attorney and Agent Roster." Applicants may also obtain a list of registered patent attorneys and agents located in their area by writing to the Mail Stop OED, Director of the U. S. Patent and Trademark Office, PO Box 1450, Alexandria, VA 22313-1450.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1-2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the source" in claim 1 line 6. There is insufficient antecedent basis for this limitation in the claim.

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Claim 1 recites the limitation "the encoder assigned to this user" in claim 1 line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "said coded sequence" in claim 1 line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the interleaved sequence" in claim 1 lines 9-10. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim. The term "may" does not point out what is actually included or excluded in the claims. The term "may" indicates that "a hybrid form of narrow sense codes and repeat codes and spreading operations" could or could not be contained within the code. It does not positively state that the codes contain "a hybrid form of narrow sense codes and repeat codes and spreading operations".

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bi (U.S. Patent 5136612) in view of Sebire (U.S. Patent 7145896 B1).

**Regarding Claim 1-2,** Bi teaches (a) assigning a code to each user, where the said code can be the same or different for different users (Col.4;47-50, every user can be assigned a different PN sequence, i.e. code) and of the same or different rates for different users and of the same or different rates for different users (Col.4;3-Col.4;12, data rates of transmissions can be the same or different for each user in a network), and (b) encoding the source data sequence for each user using the encoder assigned to this user (Col.4;40-44), and (c) interleaving the said coded sequence so as to modify the order of said coded sequence to produce the interleaved sequence (Col.4;40-44), (d) assigning a pre-calculated power level to each user, where the said power level can be the same or different for different users, but these levels are different at least for some users (Col.4;55-60), and (e) transmitting the interleaved sequence for each user using the assigned power level for this user (Col.4;55-60), however Bi is **silent on** wherein interleaved data sequences from different users are distinguished by using different interleaving schemes.

Sebire teaches that it is well known in the art that every mobile station may use different coding and interleaving schemes (Col.6;39-42), therefore it is obvious that the interleaved data sequences from different users are distinguished by using different interleaving schemes.

To one of ordinary skill in the art, it would have been obvious to modify Bi with Sebire, such that interleaved data sequences from different users are distinguished by using different interleaving schemes, to provide a method of accounting for the different rates at which data is transmitted.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley L. Kim whose telephone number is 571-272-7867. The examiner can normally be reached on Monday-Friday 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WLK



GEORGE ENG  
SUPERVISORY PATENT EXAMINER